

Fig. 1

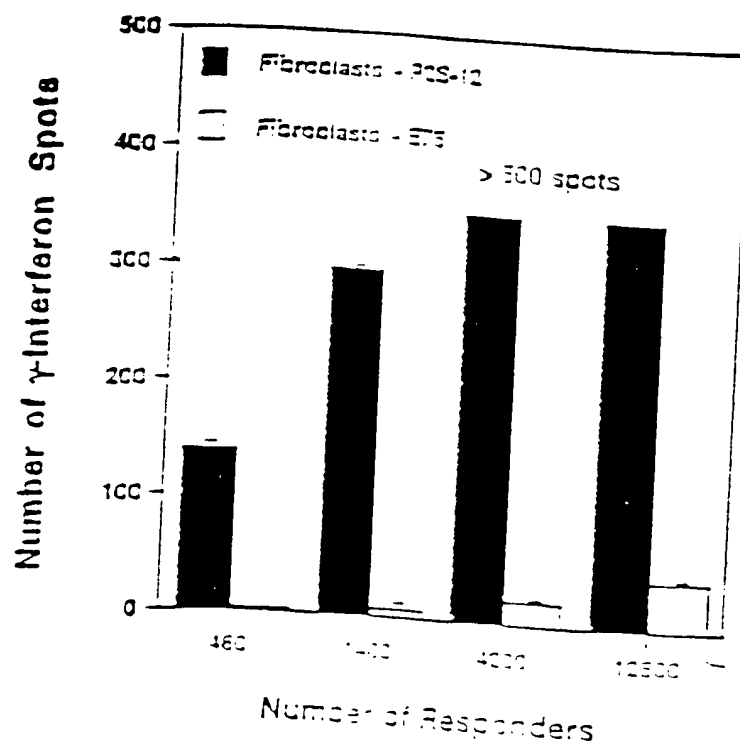


Fig. 2A

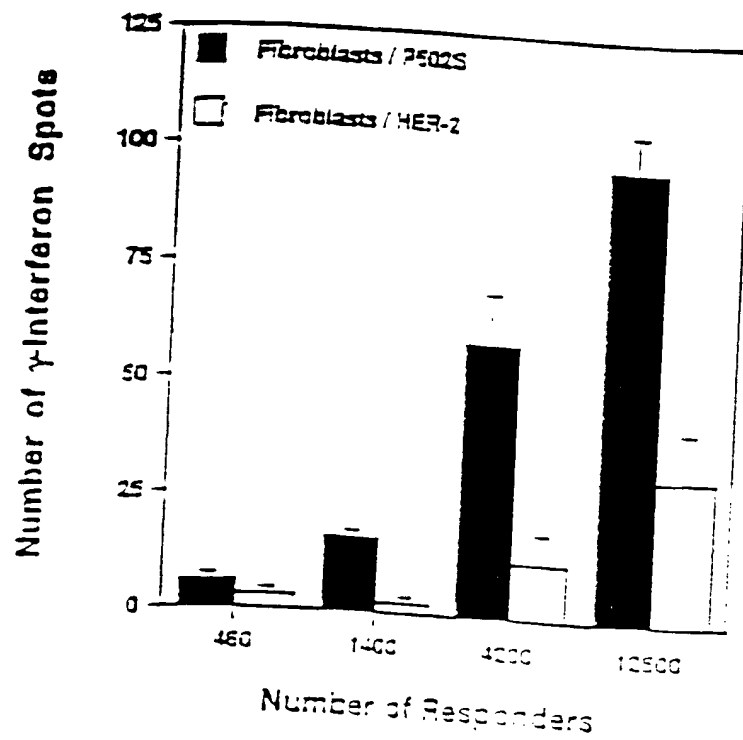


Fig. 2B

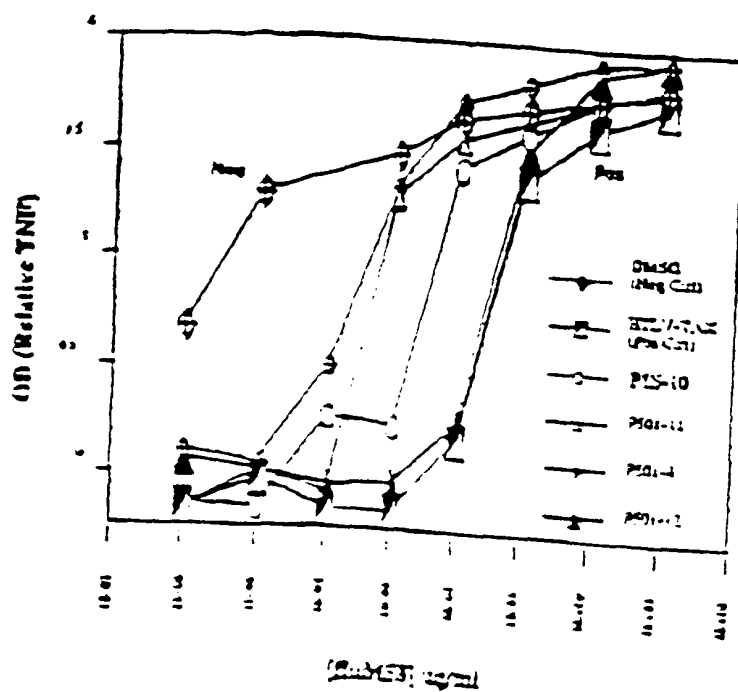


Fig. 3

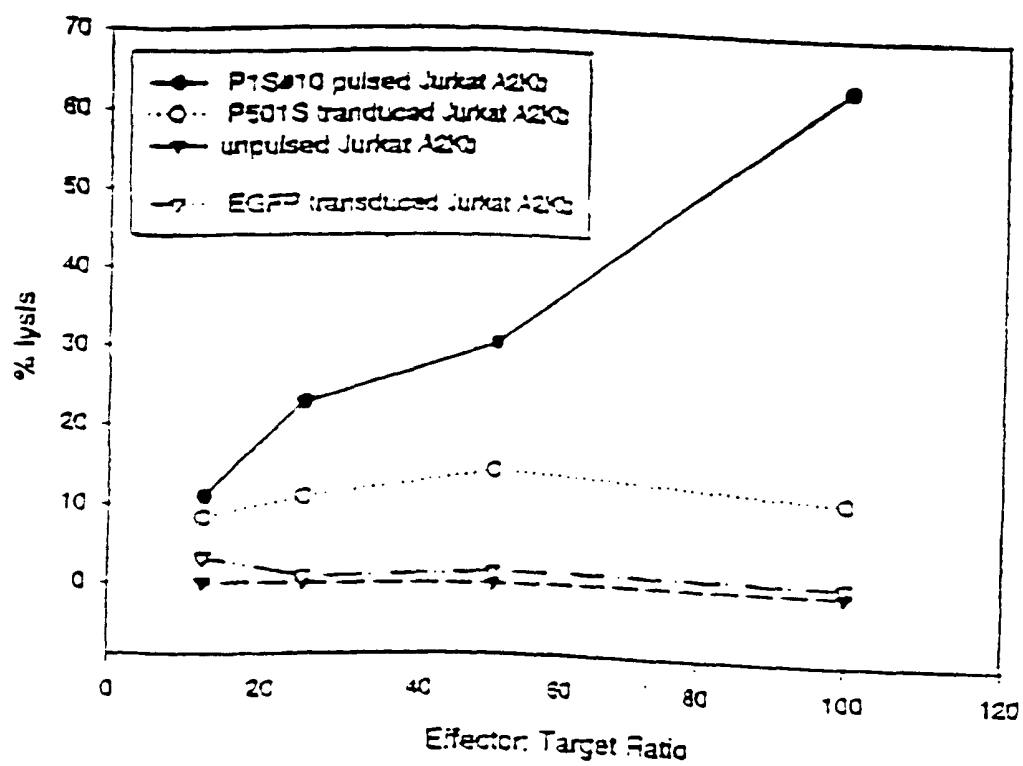


Fig. 4

Culture fraction	% lysis (p501S transduced)	% lysis (EGFP transduced)
0.02	10	0
0.04	18	0
0.10	22	0
0.28	33	-1

Fig. 5

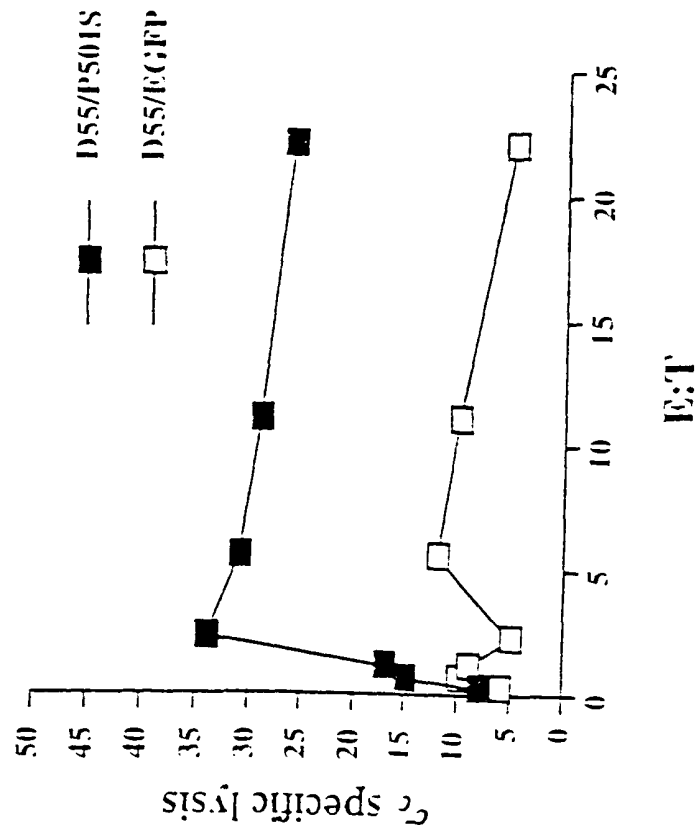


Fig. 6A

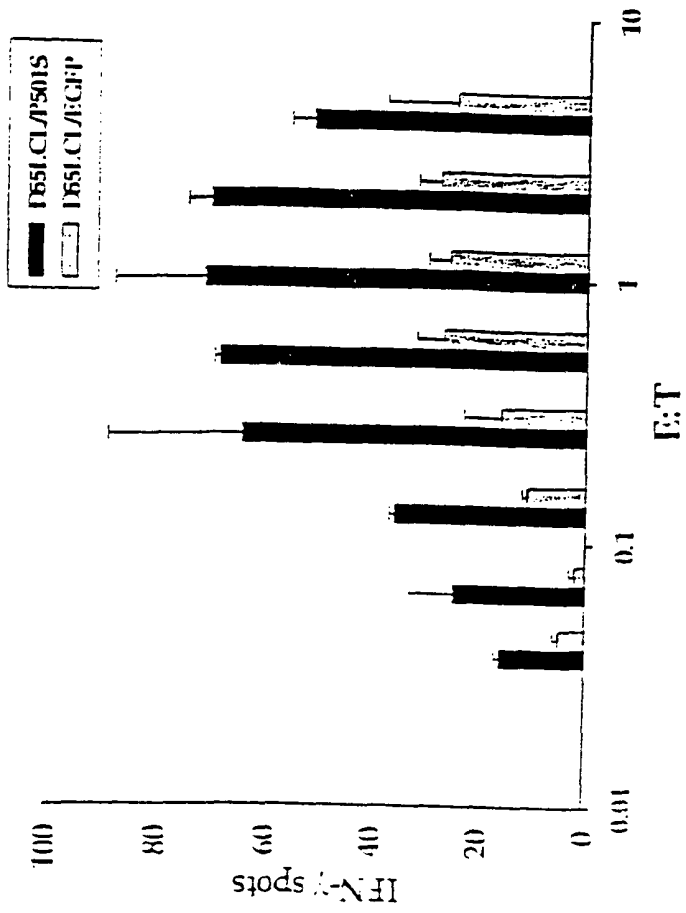
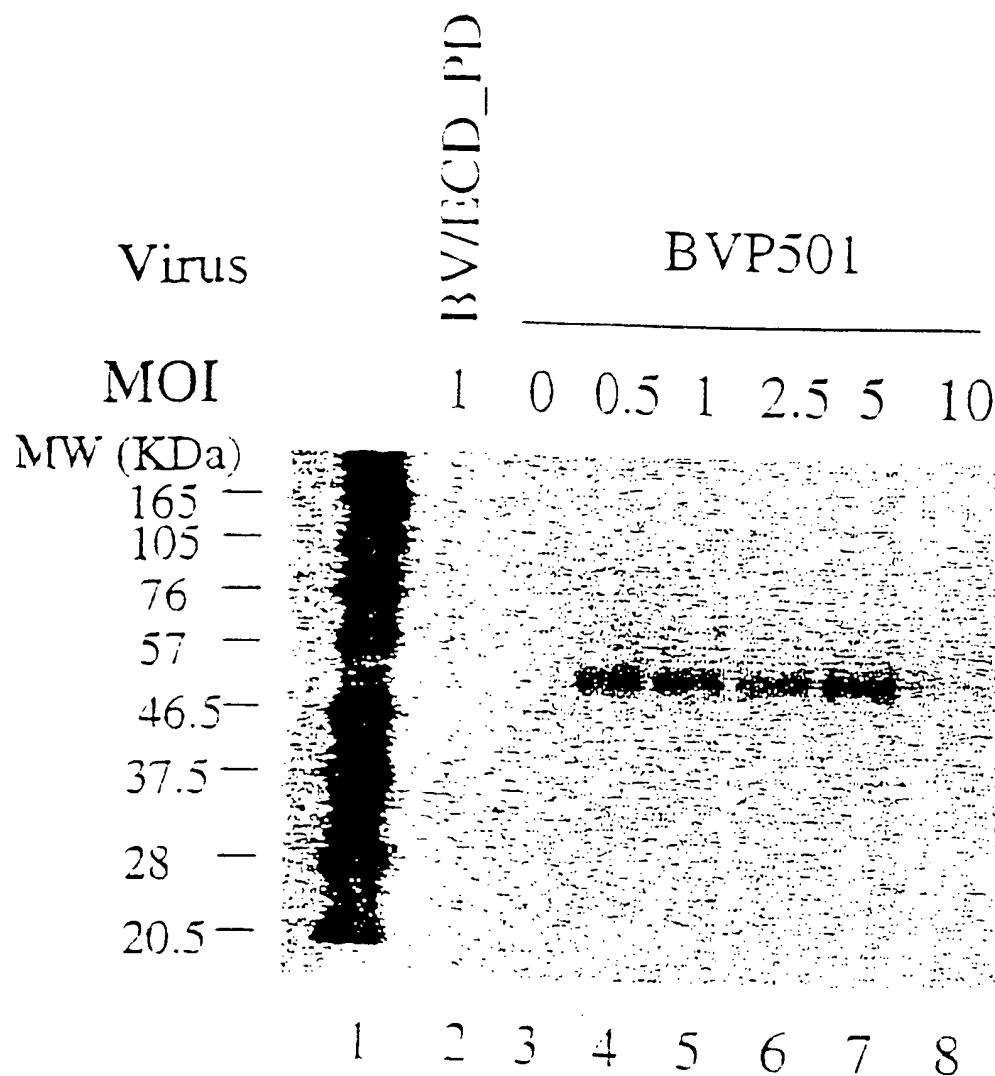


Fig. 6B

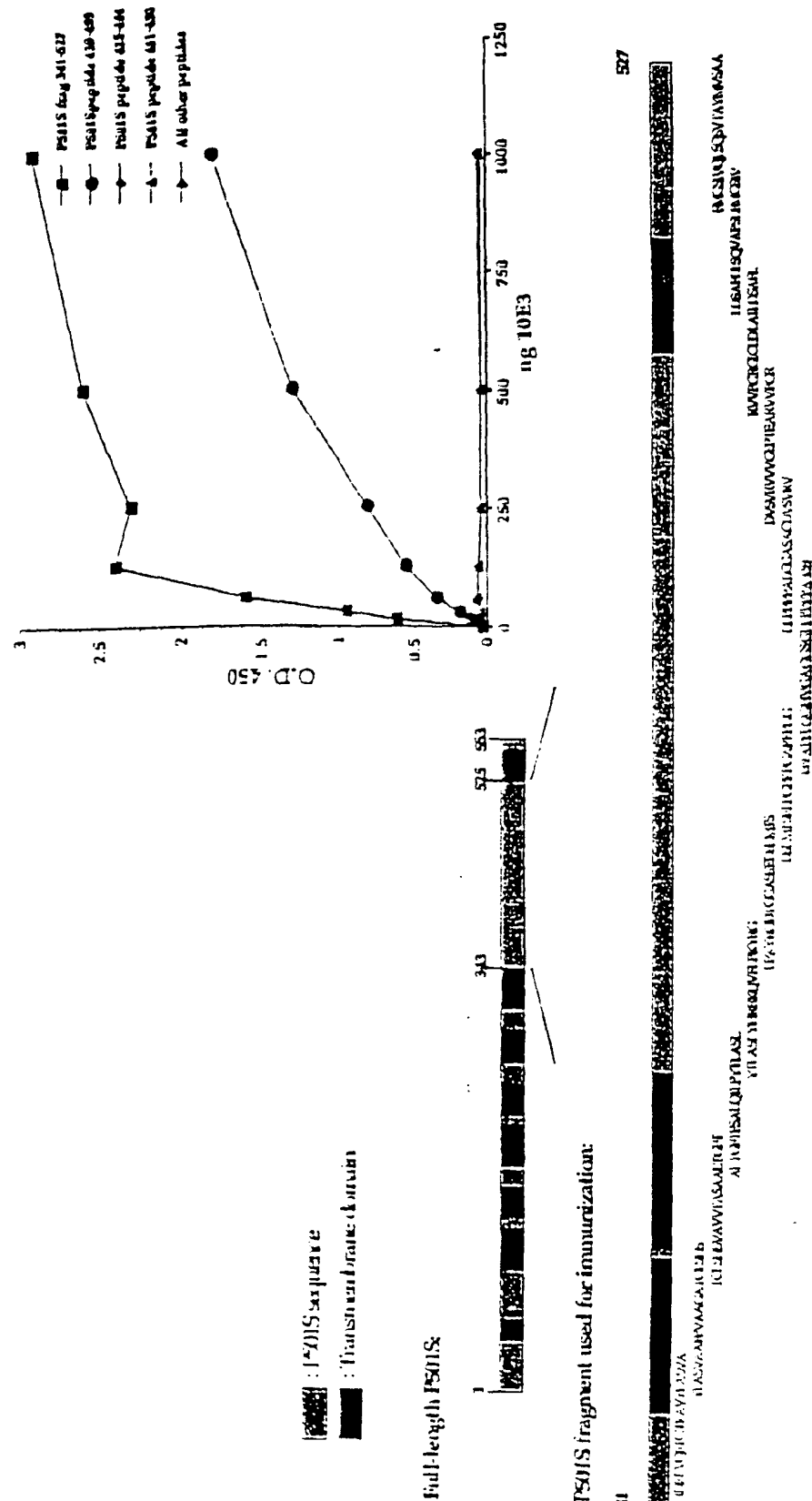
Expression of P501S by the Baculovirus Expression System



0.6 million high 5 cells in 6-well plate were infected with an unrelated control virus BV/ECD_PD (lane 2), without virus (lane 3), or with recombinant baculovirus for P501 at different MOIs (lane 4 - 8). Cell lysates were run on SDS-PAGE under the reducing conditions and analyzed by Western blot with a monoclonal antibody against P501S (P501S-10E3-G4D3). Lane 1 is the biotinylated protein molecular weight marker (BioLabs).

Fig. 7

Figure 8. Mapping of the epitope recognized by 10E3-G4-D3



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Figure 1. Schematic of P501S with predicted transmembrane, cytoplasmic, and extracellular regions

MYQRLWYSRLRLHRK AQLLLVNLTTGLEVCLAAQIT VVPPLILLEVGVEKKFM TNVLGIGPVGLVCVPLLGSAS
DHWKRGVGRRRP FIWALSQILLSLFLIPRAGWL AGLLCPDPRPLE LALLGVGLLDFCGQVCFTPL
EALLSDLFRDPDHCRQ AYSVYAFMSLGGCLQNYLLPAI DWYSALAPVLGTQEE
CLGLLLTLFLTCVAATLLY AEEAALGPTEPAEGLSPSPHCCPARLAFRNLGALLPRL
DQLCCMPRTLRR LPVAELCSWMALMTFLPTDP VGELYQGVPPRAPGTEARRIHYDEGVR
MCSLGLFLOCAISLVESLVM DRIVQREGTRAVYLAS VAAFPVAAGATCLSHSVAVVTA SAA
LTGTFSALQILPYTLASLY HREKQVFLPKYRGDTGGASSEDSIMTSFLPGPKPGAPFPNCIVGAGSGL
LPPPALCGASACDVSVRVVGEPTEARVVPGRG ICLDLALDSAFLLSQVAPSLF MGSIVQLSQS
VTAYMVSAAGLGLVAIYFAT QVVFDKSDLAKYSA

Underlined sequence: Predicted transmembrane domain; Bold sequence: Predicted extracellular domain;
Italic sequence: Predicted intracellular domain. Sequence in bold/underlined: used to generate polyclonal rabbit serum

Localization of domains predicted using IMMTOPI (G.E. Tusnady and I. Simon (1998) Principles
 Governing Amino Acid Composition of Integral Membrane Proteins: Applications to topology Prediction. *J.Mol Biol.* 283,
 489-506.

Genomic Map of (5) Corixa Candidate Genes

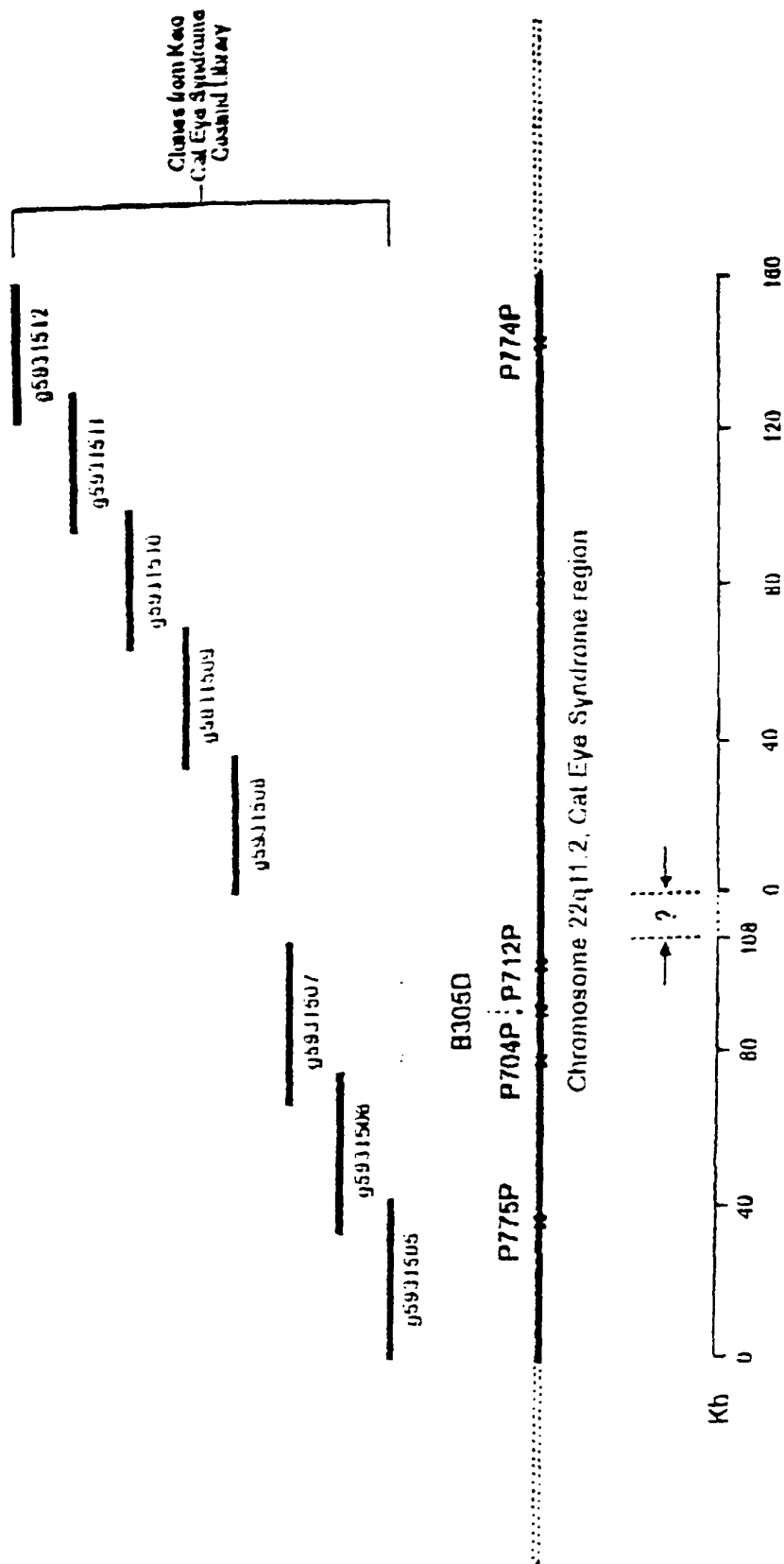


Fig. 10

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FIGURE 4. Elisa assay of rabbit polyclonal antibody specificity

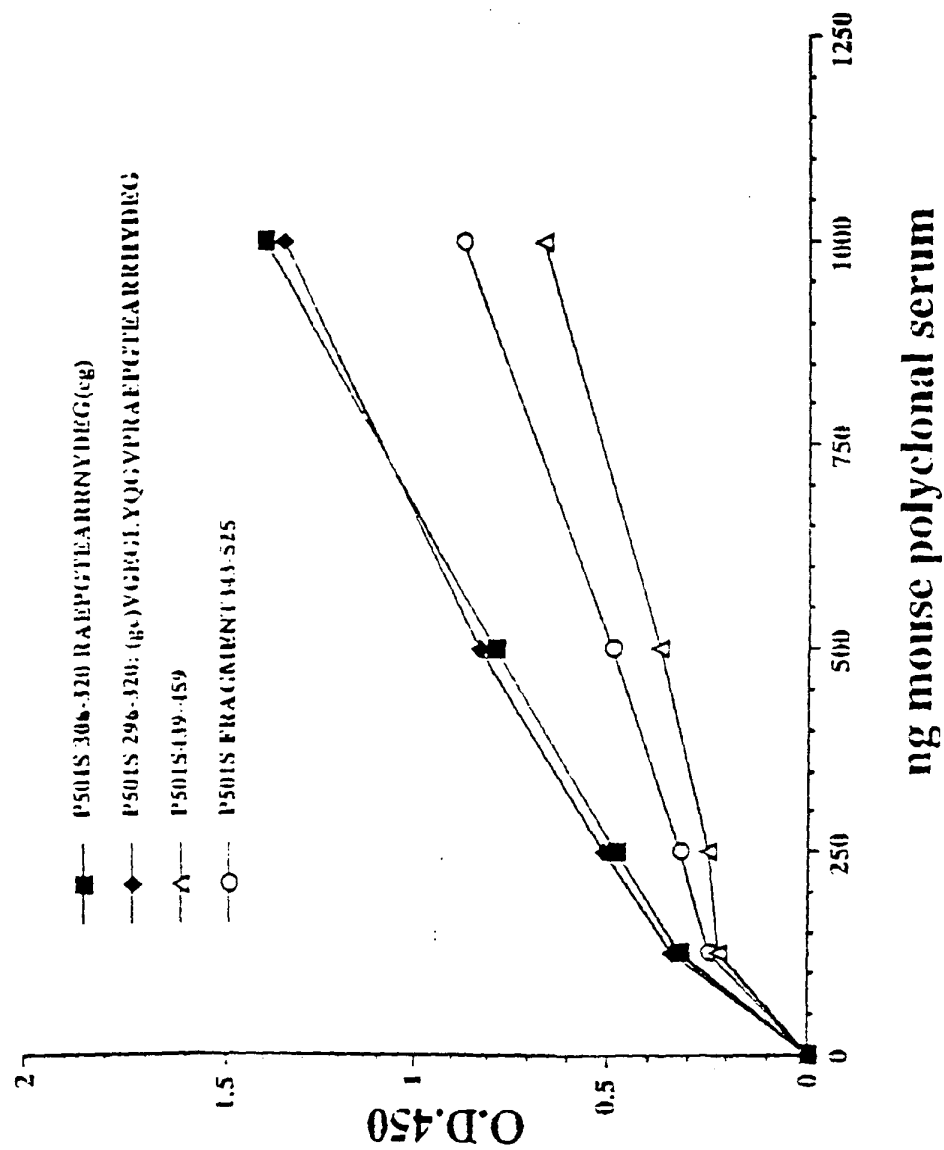


Fig. 11

10 20 30 40 50 60 70

GTCACCTAGGAAAAGGTGTCCTTTCTGGGCAGCCGGGCTCAGCATGAGGAACAGAAGGAATGACACTCTGG 70
ACAGCACCCGGACCCTGTACTCCAGCGCTCTCGGAGCACAGACTTGTCTTACAGTGAAAGCGACTTGGT 140
GAATTTTATTCAAGCAAATTTTAAGAAACGAGAATGTGTCTTCTTTACCAAAGATTCCAAGGCCACGGAG 210
AATGTGTGCAAGTGTGGCTATGCCAGAGCCAGCACATGGAAGGCACCCAGATCAACCAAAGTGAGAAAT 280
GGAACTACAAGAAACACACCAAGGAATTTCTACCGACGCCTTTGGGGATATTCAGTTTGAGACACTGGG 350

360 370 380 390 400 410 420

GAAGAAAGGGAAGTATATACGTCTGTCCTGCGACACGGACGCGGAAATCCTTTACGAGCTGCTGACCCAG 420
CACTGGCACCTGAAAACACCCAACCTGGTCATTTCTGTGACCGGGGGCGCCAAGAACTTCGCCCTGAAGC 490
CGCGCATGCGCAAGATCTTCAGCCGGCTCATCTACATCGCGCAGTCCAAAGGTGCTTGGATTCTCACGGG 560
AGGCACCCATTATGGCCTGACGAAGTACATCGGGGAGGTGGTGAGAGATAACACCATCAGCAGGAGTTCA 630
GAGGAGAATATTGTGGCCATTGGCATAGCAGCTTGGGGCATGGTCTCCAACCGGGACACCCCTCATCAGGA 700

710 720 730 740 750 760 770

ATTGCGATGCTGAGGGCTATTTTTTAGCCAGTACCTTATGGATGACTTCACAAGGGATCCACTGTATAT 770
CGTGGACAACAACCACACACATTTGCTGCTCGTGGACAATGGCTGTCATGGACATCCCACTGTCTGAAGCA 840
AAGCTCCGGAATCAGCTAGAGAAGCATATCTCTGAGCGCACTATTCAAGATTCCAACATGGTGGCAAGA 910
TCCCCATTGTGTGTTTTGCCCAAGGAGGTGGAAAAGAGACTTTGAAAGCCATCAATACCTCCATCAAAAA 980
TAAAATTCTTGTGTGGTGGTGGAAAGGCTCGGGCCGGATCGCTGATGTGATCGCTAGCCTGGTGGAGGTG 1050

1060 1070 1080 1090 1100 1110 1120

GAGGATGCCCGACATCTTCTGCCGTCAAGGAGAAGCTGGTGGCTTTTTACCCCGCACGGTGTCCCGGC 1120
TGCTTGAGGAGGAGACTGAGAGTTGGATCAAATGGCTCAAAGAAATTCTCGAATGTTCTCACCTATTAAC 1190
AGTTATTAATAATGGAAGAAGCTGGGGATGAAATTGTGAGCAATGCCATCTCCTACGCTCTATACAAAGCC 1260
TTCAGCACCAAGTGAGCAAGACAAGGATAACTGGAATGGGCAGCTGAAGCTTCTGCTGGAGTGGAAACCAGC 1330
TGGACTTAGCCAATGATGAGATTTTCACCAATGACCGCCGATGGGAGTCTGCTGACCTTCAAGAAGTCAT 1400

1410 1420 1430 1440 1450 1460 1470

GTTTACGGCTCTCATAAAGGACAGACCCAAGTTTGTCCGCCTCTTTCTGGAGAATGGCTTGAACCTACGG 1470
AAGTTTCTCACCCATGATGTCTCACTGAACCTCTCTCCAACCACTTCAGCACGCTTGTGTACCGGAATC 1540
TGCAGATCGCCAAGAATTCTATAATGATGCCCTCTCAGCTTTGTCTGGAAACTGGTTGCGAACTTCCG 1610
AAGAGGCTTCCGGAAGGAAGACAGAAATGGCCGGGACGAGATGGACATAGAACTCCACGACGTGTCTCCT 1680
ATTACTCGGCACCCCTGCAAGCTCTCTTCATCTGGGCCATTCTTCAGAAATAAGAAGGAACCTCTCCAAAG 1750

1760 1770 1780 1790 1800 1810 1820

TCATTTGGGAGCAGACCAGGGGCTGCACTCTGGCAGCCCTGCGAGCCAGCAAGCTTCTGAAGACTCTGGC 1820
CAAAGTGAAGAACGACATCAATGCTGCTGGGGAGTCCGAGGAGCTGGCTAATGAGTACGAGACCCGGGCT 1890
GTTGAGCTGTTCACTGAGTGTACAGCAGCGATGAAGACTTGGCAGAACAGCTGCTGGTCTATTCTCTGTG 1960
AAGCTTGGGGTGGAAAGCAACTGCTGGAGCTGGCGGTGGAGGCCACAGACCAGCATTTCACCGCCCAGCC 2030
TGGGGTCCAGAATTTCTTTCTAAGCAATGGIATGGAGAGATTTCCCGAGACACCAAGAAGTGGAAAGATT 2100

Fig. 12A

2110	2120	2130	2140	2150	2160	2170
ATCCTGTGTCTGTTTATTATACCCCTTGGTGGGCTGTGGCTTTGTATCATTTAGGAAGAAACCTGTCGACA	2170					
AGCACAAGAAGCTGCTTTGGTACTATGTGGCGTTCTTCACCTCCCCCTTCGTGGTCTTCTCCTGGAATGT	2240					
GGTCTTCTACATCGCCTTCTCCTGCTGTTTGCCACGTGCTGCTCATGGATTTCCATTCGGTGCCACAC	2310					
CCCCCGAGCTGCTCCTGTACTCCCTGGTCTTTGTCTCTTCTGTGATGAAGTGAGACAGTGGTACGTAA	2380					
ATGGGGTGAATTATTTTACTGACCTGTGGAATGTGATGGACACGCTGGGGCTTTTTTACTTCATAGCAGG	2450					
2460	2470	2480	2490	2500	2510	2520
AATTGTATTTTCGGCTCCACTCTTCTAATAAAAGCTCTTTGTATTCTGGACGAGTCATTTTCTGTCTGGAC	2520					
TACATTATTTTCACTCTAAGATTGATCCACATTTTACTGTAAGCAGAACTTAGGACCCAAGATTATAA	2590					
TGCTGCAGAGGAIGCTGATCGATGTGTCTTCTTCTCCTGTTTCTTTCGGTGTGGATGGTGGCCTTTGG	2660					
CGTGGCCAGGCAAGGGATCCTTAGGCAGAATGAGCAGCGCTGGAGGTGGATATTCGGTTCGGTCATCTAC	2730					
GAGCCCTACCTGGCCATGTTCCGGCCAGGTGCCAGTGACGTGGATGGTACCACGTATGACTTTGCCCACT	2800					
2810	2820	2830	2840	2850	2860	2870
GCACCTTCACTGGGAATGAGTCCAAGCCACTGTGTGTGGAGCTGGATGAGCACAACCTGCCCGGTTCCC	2870					
CGAGTGGATCACCATCCCCCTGGTGTGCATCTACATGTTATCCACCAACATCCTGCTGGTCAACCTGCTG	2940					
GTCGCCATGTTTGGCTACACGGTGGGCACCGTCCAGGAGAACAATGACCAGGTCTGGAAGTTCAGAGGT	3010					
ACTTCTGCTGGTGCAGGAGTACTGCAGCCGCTCAATATCCCCCTTCCCCCTCATCGTCTTCGCTTACTTCTA	3080					
CATGGTGGTGAAGAAGTGCTTCAAGTGTGCTGCAAGGAGAAAAACATGGAGTCTTCTGTCTGCTGTTTC	3150					
3160	3170	3180	3190	3200	3210	3220
AAAAATGAAGACAATGAGACTCTGGCATGGGAGGGTGTGCATGAAGGAAAACTACCTTGTCAGATCAACA	3220					
GAAAAGCCAACGACACCTCAGAGGAAATGAGGCATCGATTTAGACAACCTGGATACAAAGCTTAATGATCT	3290					
GAAGGGTCTTCTGAAAGAGATTGCTAATAAAATCAAATAAAACTGTATGAACTCTAATGGAGAAAAATC	3360					
TAATTATAGCAAGATCATATTAAGGAATGCTGATGAACAATTTTGCTATCGACTACTAAATGAGAGATT	3430					
TEAGACCCCTGGGTACATGGTGGATGATTTAAATCACCTAGTGTGCTGAGACCTTGAGAATAAAGTGT	3500					
3510	3520	3530	3540	3550	3560	3570
GTGATTGGTTTCATACTTGAAGACGGATATAAAGGAAGAATATTTCCCTTTATGTGTTTCTCCAGAATGGT	3570					
GGCTGTTTCTCTCTGTGTCTCAATGCCTGGGACTGGAGGTGATAGTTTAAGTGTGTTCTTACCGCCTCC	3640					
TTTTTCTTTAATCTTATTTTGGATGAACACATATATAGGAGAACATCTATCCTATGAATAAGAACCTGG	3710					
TCATGCTTTACTCCTGTATTGTTATTTTGTTCATTTCCAATTGATTCTCTACTTTTCCCTTTTTTGATT	3780					
ATGTGACTAATTAGTTGGCATATTGTTAAAAGTCTCTCAAATTAGGCCAGATTCTAAAACATGCTGCAGC	3850					
3860	3870	3880	3890	3900	3910	3920
AAGAGGACCCCGCTCTCTTCAGGAAAAGTGTTTTCAATTTCTCAGGATGCTTCTTACCTGTCAGAGGAGGT	3920					
GACAAGGCAGTCTCTTGCTCTCTTGGACTCACCAGGCTCCTATTGAAGGAACCACCCCATTCCTAAATA	3990					
TGTGAAAAGTCGCCCAAAATGCAACCTTGAAAGGCACTACTGACTTTGTCTTATTGGATACTCCTCTTA	4060					
TTTATTATTTTCCATTAAAAAIAATAGCTGGCTATTATAGAAAATTTAGACCATACAGAGATGTAGAAA	4130					
GAACATAAATTGTCCCCATTACCTTAAGGTAATCACTGCTAACAATTTCTGGATGGTTTTTCAAGTCTAT	4200					
4210	4220	4230	4240	4250	4260	4270
TTTTTTTCTATGATGTCTCAATTCTCTTTCAAATTTTACAGAATGTTATCATACTACATATATACTTT	4270					
TTATGTAAGCTTTTTCACTAGTATTTTATCAAATATGTTTTTATTATATTATAGCCTTCTTAAACATT	4340					
ATATCAATAATTGCATAATAGGCAACCTCTAGCGATTACCATAATTTTGCTCATTGAAGGCTATCTCCAG	4410					
TTGATCATTGGGATGAGCATCTTGTGCATGAATCCTATTGCTGTATTTGGGAAAAATTTTCCAAGGTTAG	4480					
ATTCCAATAAATATCTATTTATTATTAAATATTAAAATATCGATTTATTATTAAAACCATTTATAAGGCT	4550					

[illegible]

10 20 30 40 50 60 70
 MRNRRNDTLDSTRTRYSSASRSTDLSESDLVNFIQANFKKRECVFFTKDSKATENVCKCGYAQSQHME 70
 GTQINQSEKWNKKHTKEFPTDAFGDIQFETLGKKGKYIRLSCDTAEILYELLTQHWHLKTPNLVISVT 140
 GGAKNFALKPRMRKIFSRLIYIAQSKGAWILTGGTHYGLTKYIGEVRDNTISRSSEENIVAIGIAAWGM 210
 VSNRDTLIRNCDAEGYFLAQYLMDDFTRDPLYILDNNHTHLLLVDNGCHGHPTVEAKLRNQLKHSERT 280
 IQDSNYGGKIPIVCFAQGGGKETLKAINTSIKNKIPCVVVEGSGRIADVIASLVEVEDAPTSSAVKEKLV 350
 360 370 380 390 400 410 420
 RFLPRTVSRLSEEETESWIKWLKEILECSHLLTVIKMEEAGDEIVSNAISYALYKAFSTSEQDKDNWNGQ 420
 LKLLLEWNLQDLANDEIFTNDRRWESADLQEVMTALIKDRPKFVRLFLENGLNLRKFLTHDVLTELSN 490
 HFSTLVYRNLIQAKNSYNQALLTFVWKLVANFRRGFRKEDRNGRDEMDELHDVSPITRHPLQALFIWAI 560
 LQNKKELSKVIWEQTRGCTLAALGASKLLKTLAKVKNDINAAGESEELANEYFTRAVELFTECYSSDEDL 630
 AEQLLVYSCEAWGGSNCLELAVEATDQHFQAQPGVONFLSKQWYGEISRDTKNWKIILCLFIIPLVGCGF 700
 710 720 730 740 750 760 770
 VSFRKKPVOKHKKLLWYYVAFFTSPFVVFSWNVVFYIAFLLLFAFVLLMDFHSVPHPPPELVLYSLVFVLF 770
 CDEVQWYVNGVNYFTDLWNVMDTLGLFYFIAGIVFRLHSSNKSSLYSGRVIFCLDYIFTLRLIHIFTV 840
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 DGT TYDFAHCTFTGNE SKPLCVELDEHNLPRFPEWITIPVLCIYMLSTNILLVNL LVAMFGYTVGTQEN 980
 NQVWKFOR YFLVQEYCSRLNIPFPFIVFAYFYMVVKCKFCCKCKEKNMESSVCCFKNEDNETLAWEGVM 1050
 1060 1070 1080 1090 1100 1110 1120
 KENYLVKINTKANDTSEEMRHRFRQLDTKLNOLKGLLKEIANKIK. 1096

Fig. 12B